

What is claimed is:

1. An image analysis device comprising:  
first and second cameras which together constitute a set of stereo cameras; and  
a distance calculation section which is adapted to calculate distance to an object  
in such a manner that a first image of the object is extracted from an image of a field  
taken by the first camera while a second image of the object corresponding to the first  
image of the object is extracted from a seeking area being set, in another image of the  
field taken by the second camera, depending on the extracted first image using a  
correlation calculation process, and then a parallax between the first and second images  
is calculated, wherein

the distance calculation section is further adapted to set a moving increment  
based on the width of an object frame that is determined depending on the first image of  
the object, and to execute the correlation calculation process while moving the first  
image of the object stepwise at the moving increment in the seeking area so as to extract  
a new seeking area which consists of a correlation area that exhibits a high degree of  
correlation with the first image of the object and two areas that sandwich the correlation  
area.

2. An image analysis device according to claim 1, wherein the moving increment  
is set to be equal to the width of the object frame.

3. An image analysis device according to claim 2, wherein the distance calculation  
section is further adapted to reset the moving increment to a smaller moving increment  
based on the width of the object frame every time the new seeking area is extracted, and

- 4 to execute the correlation calculation process in the new seeking area while moving the
- 5 first image of the object stepwise at the smaller moving increment.